

## IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A continuously variable transmission comprising:
  - a transmission input,
  - a transmission output,
  - a ~~continuously variable transmission unit ("variator")~~ variator which provides a continuously variable variator ratio, and
  - gearing constructed and arranged to couple the variator between the transmission input and the transmission output in either of a low regime and a high regime, so that the transmission output is drivable from the transmission input at a transmission ratio which is related to the variator ratio,
  - the relationship between the variator ratio and the transmission ratio being different in the two regimes,
  - the gearing incorporating a first hydraulically actuated clutch means for engaging and disengaging to engage and disengage the low regime and a second hydraulically actuated clutch means for engaging and disengaging to engage and disengage the high regime and being such as to provide a synchronous ratio at which a change between low and high regimes at constant variator ratio produces no change in transmission ratio, and
  - the transmission being provided with hydraulics incorporating a shift valve which controls application of hydraulic pressures to the first and second clutches ~~clutch means~~, so that a change in state of the shift valve causes one of the clutch ~~means~~ to change from engaged to disengaged and the other of the clutch ~~means~~ to change from disengaged to engaged, ~~thereby and~~ causing the transmission to change from one regime to the other, the

transmission further comprising

a hydraulic actuator, wherein the hydraulic actuator's force determines  
variator reaction torque,

a valve arrangement for providing first and second variator control  
pressures, and

a switching valve having a first state in which it applies the first variator  
control pressure to a first side of the hydraulic actuator, and a second state,  
in which it applies the second variator control pressure to a second side of  
the hydraulic actuator, so that a change in state of the switching valve  
produces a change in magnitude and direction of the actuator's force, the  
state of the switching valve being controlled by the shift valve.

2. (Original) A continuously variable transmission as claimed in claim 1 wherein the shift valve is a two state valve which causes the transmission to adopt low regime when in one state and high regime when in the other state.
3. (Currently amended) A continuously variable transmission as claimed in claim 1 wherein the engagement of one clutch ~~means~~ and the disengagement of the other clutch take place concurrently.
4. (Currently amended) A continuously variable transmission as claimed in claim 1 wherein the shift valve is an electrically controlled valve which applies a hydraulic control pressure to a clutch control valve which in turn controls application of hydraulic pressures to the first and second clutches means.
5. (Currently amended) A continuously variable transmission as claimed in

claim 4 wherein the clutch control valve has two states in one of which it connects the first clutch ~~means~~ to high pressure and exhausts the second clutch ~~means~~ and in the other of which it connects the second clutch ~~means~~ to high pressure and exhausts the first clutch ~~means~~.

6. (Canceled)

7. (Original) A continuously variable transmission as claimed in claim 6 wherein a change in state of the shift valve also causes a change in the magnitude of the actuator force.

8-9. (Canceled)

10. (Original) A continuously variable transmission as claimed in claim 8 wherein the first variator control pressure is supplied to a reducing valve whose output pressure forms the second variator control pressure.

11. (Original) A continuously variable transmission as claimed in claim 10 wherein the reducing valve maintains a substantially constant ratio between the first and second control pressures.

12. (Previously presented) A continuously variable transmission as claimed in claim 8 further comprising a crossover valve connected between the switching valve and the hydraulic actuator so that a change in state of the crossover valve reverses

the direction of action of the hydraulic actuator without the regime change.

13. (Original) A continuously variable transmission as claimed in claim 12 wherein the crossover valve is electrically controlled independently of the shift valve.

14. (Cancelled)